

C-O-N-F-I-D-E-N-T-I-A-L

Approved For Release 2000/08/23 : CIA-RDP79-00798A000400010001-2

20 Sep 73
(DATE)

MEMORANDUM FOR THE RECORD

SUBJECT: Opinion Request

*- Scientific and Technical Cooperation
in Forestry, US-USSR*

Attached is self-explanatory material from the Department of State.
May we have your opinion by 12 Oct 73.

Please state degree of interest and whether we will receive requirements.

26/100
(IIAGE)

Progress Report 17 Sept 73 (Robert W. Brandt USDA)
COMMENTS:

USDA Waiver Letter In ERU File

25X1A

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IRS

*no comments
25 Oct 73*

*see memo
of 25 Oct 73*

*Let
Forestry*

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C-O-N-F-I-D-E-N-T-I-A-L

WO

REPLY TO: 1550 International Groups

September 17, 1973

SUBJECT: Scientific and Technical Cooperation in Forestry,
U.S.-U.S.S.R.

TO: Roy Wald
State Department



Enclosed is a copy of a report of progress summarizing generally our U.S.S.R. sessions. A copy of the signed documents will be forwarded as soon as we get a minor revision of one page from Moscow.

Bob Brandt

ROBERT W. BRANDT
Assistant to the Deputy Chief

Enclosure

Forest Service
USDA
September 7, 1973

COOPERATION IN FORESTRY SCIENCE AND TECHNOLOGY U.S. AND U.S.S.R.

Results of a Two-week Planning Trip

Under the Agreement of May 24, 1972, for cooperation between the U.S. and U.S.S.R. in the fields of science and technology, forestry was approved by the Joint Commission, March 21, 1973. The Forest Service was designated as the lead agency for the U.S. and the State Committee on Forestry for the U.S.S.R.

Informal discussions had been held in Argentina in October 1972 during the 7th World Forestry Congress and in Moscow in February 1973. A two-week meeting was scheduled from August 26 to September 7, 1973, and a list of topics of interest to both countries agreed to.

The U.S. Delegation included:

John McGuire - Chief, Forest Service
Keith Arnold - Deputy Chief, Forest Service
Robert Brandt - Pathologist, Forest Service
Lynn Biddison - Fire Control, Forest Service
Eric Ellwood - Dean, School of Forest Resources,
North Carolina
Oscar Traczewitz - Director of Woodlands,
International Paper Company
Alexis B. Tatistcheff - Interpreter

Two weeks of discussion and negotiation, travel, and program review produced three lists of possible cooperative programs:

1. An agreed upon list of specific subjects for cooperation:

I. Effective methods and means of detection, prevention and control of forest fires.

(1) Techniques and tactics of detection, prevention and control of forest fire with special emphasis at first on use of aircraft and chemicals and retardants.

Exchange of information.
Exchange of experts and development of working program.

(2) Development of automatically controlled systems of operative forest fire control management.

Exchange of information.

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(3) Artificial rainfall and prevention of lightning for forest fire prevention and control. Exchange of information.

(4) Additional items of interest: Exchange of information.
(a) Infrared detection of fires
(b) Fire danger rating
(c) Development of mathematical models of forest fires
(d) Ground equipment for fire control

II. Integrated control of forest insects and diseases.

(1) Integrated control of gypsy moth and its population forecasting Exchange of information.
(a) Methods of survey of gypsy moth (*Porthetria dispar* L.) Exchange of information.
(b) Methods and techniques of gypsy moth control with the use of attractants. Exchange of information. Joint work.

(2) Development and improvement of microbiological and chemical means of control of forest insects. Joint work. Exchange of experts. Exchange of information.

III. Classification of forest biogeocenosis (ecosystems) and determination of their biological potential.

(1) Development and specification of classification for forest biogeocenosis. Exchange of information, methods and programs.

(2) Definition of forest productivity potential. Exchange of information and programs of work.

(3) Influence of economical activities on the dynamics of forest biogeocenosis, including utilization of chemicals in forest tending. Joint work.

(4) Economical evaluation of forest productivity as to classification. Exchange of information.

IV. Development of improved technological processes of harvesting.

- | | |
|---|---|
| (1) Technology of clearcutting and clearing the site. | Exchange of information. |
| (2) Study of forest environment changes under influence of fellings and mechanized-logging. | Exchange of information. |
| (3) Development of technology of performing shelterwood and selection fellings with use of prospective machinery and equipment. | Exchange of information. Exchange of experts. Joint research. |

V. Forest regeneration and afforestation.

- | | |
|---|--|
| (1) Tree breeding and seed production of tree species for protective reforestation. | Exchange of information. Exchange of selected materials. Joint research. |
| (2) Establishment of field shelterbelts in various natural conditions and their tendings. | Exchange of information. Preparation of joint research programs. |
| (3) Technology and mechanization of reforestation activities (seedling growing in controlled environment, mechanization of planting and automation of forest plantations and management.) | Exchange of information. Development of joint research programs. |

2. Some broad areas of utilization which require study and review in each country before specific cooperative activities can be negotiated with:

Ministry of Wood and Woodworking Industry of the U.S.S.R.

- (a) development of a system of machinery and equipment to carry out the totality of all the work involved in felling and logging forest areas in flat and mountainous terrain so as to eliminate the use of manpower.

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- (b) development of modern technology and equipment for treatment of wood waste in the manufacture of particle, fibre, and other hard boards, including equipment, technique and materials for perfecting the surface of the boards.
- (c) creation of a continuous production process and equipment for the production of large plywood sheets for construction purposes from coniferous woods including larch.

Ministry of Pulp and Paper Industry of the U.S.S.R.

- (a) the chemistry of lignin with the aim of its intensive utilization during the treatment of wood.
- (b) improvement of the quality and creation of new types of wood pulp for chemical treatment.
- (c) modernization of the technology of wood pulp production with the object of preventing pollution of the environment.

3. Some general topics for future consideration for possible cooperation:

- (1) Genetics, selection, introduction and forest seed production.
- (2) Establishment of high-productive and early-maturing plantations including utilization of effluents for the purposes of irrigation.
- (3) Development of methods of forest inventory and forest organization with the use of measurement techniques and airsurvey (aerial photography).
- (4) Economics and organization of multipurpose forestry.
- (5) Interrelationships of the forest and the environment.
- (6) Dutch elm disease in shelterbelts and methods of its control.
- (7) Establishment and maintenance of forest stand optimal structure.
- (8) Biological and chemical methods of control of *Fomes annosus*.

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- (9) Training of scientific personnel by means of postgraduate study and by improving skills of managing personnel.
- (10) Development of improved utilization of wood and wood processing residues.

If this general program is approved by the Joint Commission on Scientific and Technical Cooperation at its next meeting in October or November, we will embark on specific cooperative activities as shown in the first list. We will need to select one or two scientists for each specific subject to carry out our end. Note that we plan to exchange visits of experts in only three areas during 1974. Most of the programs start with an exchange of information and the establishment of communication between our selected scientists and their Russian counterparts. We hope this will be well underway by the time the U.S.S.R. Delegation meets with us in 1974.

For the areas in list 2, we will arrange discussions with representatives of Universities and the Forest Industry to determine specific topics for negotiation with the Ministries involved.

We may select a very few specific additional activities from list 3 for discussion at the next meeting of Forestry Delegations.

This cooperation is expensive and time consuming. We believe it will be worth while and pay off to the United States if we use the following criteria for selection of cooperative efforts:

- (1) The activity is related to an important U.S. problem.
- (2) Both U.S. and U.S.S.R. can contribute to a better understanding of the problem if not to a solution.
- (3) The costs are no more than the cost of doing all the work in the U.S. (We realize that the U.S. may contribute more in some areas and the U.S.S.R. in others. We expect and insist, however, that in total the effort of the two countries will be roughly in balance and the value to each country will be approximately equal.)

To the Joint Commission on
Scientific and Technical
Cooperation: US-USSR

Moscow, September 6, 1973

R E P O R T

The Joint US-USSR Working Group on scientific and technical cooperation in Forestry transmits to the US-USSR Joint Commission the minutes of the meeting between the leaders of the delegation of the US -- Mr. J. R. McGuire, Chief, Forest Service, U. S. Department of Agriculture -- and of the USSR -- Mr. G. I. Vorobyov, Chairman of the State Forestry Committee, USSR Council of Ministers -- as well as minutes of the first meeting of the US-USSR Working Group with appropriate appendices.

The delegations request the Joint Commission to approve this program so that further scientific and technical cooperation may go forward as rapidly as possible.



J. R. McGuire
Chief, Forest Service
U. S. Department of Agriculture



G. I. Vorobyov
Chairman, State Forestry
Committee
USSR Council of Ministers

M I N U T E S

of the meeting of the Leader of the US
Forestry Delegation and the Chairman of
the State Forestry Committee, USSR Council
of Ministers on Scientific and Technical
cooperation in Forestry

During the period of August 26 to September 7, 1973 talks
between the delegations of the USA headed by the Forest Service,
Department of Agriculture, and the State Forestry Committee, USSR
Council of Ministers on Scientific and Technical Cooperation in
Forestry were held in Moscow.

The Participants were:

on the American Side:

| | |
|---------------|--|
| J. R. McGuire | Chief, Forest Service, US Department of Agriculture |
| R. K. Arnold | Deputy Chief, Forest Service for Research |
| R. W. Brandt | Plant Pathologist, Forest Service |
| L. Biddison | Assistant Regional Forester, Division of Fire and Air Management, Forest Service |
| E. Ellwood | Dean, School of Forest Resources North Carolina State University |
| O. Traczewitz | Director of Woodlands, Inter- national Paper Company |

on the Soviet Side:

| | |
|--------------|---|
| G. Vorobyov | Chairman, State Forestry Committee, USSR Council of Ministers |
| N. Moissejev | Chief, Department of Science, Introduction of Advanced Methods and Foreign Relations |
| V. Atrokhin | Director, Institute for Advanced Training of Management Personnel and Forestry Experts, Deputy Director, All-Union Research Institute for Forestry and Mechanization |

*This page is being retyped in Moscow to be sent to U.S. for the official
document. This is to be used as a working copy only.

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| | |
|--------------|---|
| D. Stolyarov | Director, Leningrad Forestry Research Institute |
| D. Godin | Chief Expert, Department of Forest and Building Industry, State Committee for Science and Technology, USSR Council of Ministers |
| S. Bychkov | Head Expert, Department of Forestry, State Planning Committee (GOSPLAN), USSR |
| E. Shishkov | Chief, Department of Foreign Relations, State Forestry Committee, USSR Council of Ministers |

During the talks the sides discussed subject areas as well as the forms of Scientific and Technical Cooperation in Forestry.

The plan for Scientific and Technical Cooperation for 1974-79 is directed toward solving the following main problems of mutual interest:

- I. Effective methods and means of detection, prevention and control of forest fires;
- II. Integrated control of forest insects and diseases;
- III. Classification of forest biogeocenosis (ecosystems) and determination of their biological potential;
- IV. Development of improved technological processes of forest harvesting;
- V. Reforestation and afforestation.

The sides note that all listed subjects are directly connected with the relationships of forest and environment.

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The sides organized a joint Soviet-American Work Group of experts in Forestry who made a comprehensive exploration and determination of the main trends of Scientific Technical Cooperation in the field of Forestry between the US and USSR.

The sides approved the subject areas and the forms of Scientific and Technical Cooperation in Forestry developed by the joint American-Soviet Work Group of experts (Appendix 1).

Parties recognized also the topicality of the problems of recreation, genetics and selection of future forests, optimum forest density, training of scientific personnel, etc. (Appendix 2). All these problems will be considered in prospective cooperation plans.

As a result of an exchange of opinions between the Delegation of the USA and the Ministry of Wood and Wood-working Industry of the USSR, the following possible directions of Scientific and Technical Cooperation were expressed as desirable and as being subject to broadening by mutual agreement of both sides:

- (a) development of a system of machinery and equipment to carry out the totality of all the work involved in felling and logging forest areas in flat and mountainous terrain so as to eliminate the use of manpower;
- (b) development of modern technology and equipment for treatment of wood waste in the manufacture of particle, fibre, and other

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hard boards, including equipment, technique and materials for perfecting the surface of the boards;

- (c) creation of a continuous production process and equipment for the production of large plywood sheets for construction purposes from coniferous woods including larch.

Specific subjects and forms of Scientific and Technical Cooperation between the organizations of the USA and the USSR in the area of the wood and woodworking industry will be determined by both sides at a future date.

In the course of discussions between the US Forestry Delegation and the Ministry of Pulp and Paper Industry of the USSR, the following possible directions for Scientific and Technical Cooperation were noted:

- (a) the chemistry of lignin with the aim of its intensive utilization during the treatment of wood;
- (b) improvement of the quality and creation of new types of wood pulp for chemical treatment;
- (c) modernization of the technology of wood pulp production with the object of preventing pollution of the environment.

Each party agreed to discuss subjects and forms of cooperation before the next meeting of the Joint Work Group.


During the visit in the USSR the American Delegation became acquainted with activities of the All-Union Research

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Institute for Forestry and Mechanization, of the Leningrad Forestry Research Institute, and of enterprises and organizations of Forestry in the Ukrainian Republic. The American Delegation also visited the international exhibition "Lesdrevmash - 73."

Parties note with satisfaction that their meeting proceeded in an amicable and business-like atmosphere, and will contribute to a strengthening of cooperation in the field of forestry. The parties agreed to hold a meeting of the American-Soviet Work Group in the US in 1974 if the proposed program is approved by the Joint Commission.

Minutes have been drawn up in Moscow, 6th of September 1973, in Russian and in English, and these two texts are equally valid.



CHAIRMAN OF THE STATE
FORESTRY COMMITTEE OF
THE USSR COUNCIL OF
MINISTERS



CHIEF, FOREST SERVICE
US DEPARTMENT OF
AGRICULTURE

M I N U T E S

of the first meeting of the Joint American-Soviet Work Group experts on Scientific and Technical Cooperation in the Field of Forestry

In accordance with the Agreement between the Governments of the US and USSR for cooperation in the fields of Science and Technology, signed on May 24, 1972, and with the decision of the First Session of the American-Soviet Joint Commission on Scientific and Technical Cooperation, the first meeting of the Joint American-Soviet Work Group of experts on Scientific and Technical Cooperation in the Field of Forestry was held.

The meeting took place in Moscow from August 26 to September 7, 1973.

The Working Group of the American Delegation was headed by R. K. Arnold, Deputy Chief for Research, Forest Service, US Department of Agriculture.

The Working Group of the Soviet Delegation was headed by N. A. Moissejev, Chief of the Department of Research, Introduction of Progressive Innovation and Foreign Relations, State Forestry Committee, USSR Council of Ministers.

The Working Group at this first meeting considered:

- subject areas for Scientific and Technical Cooperation in the Field of Forestry;
- orders and forms of Scientific and Technical Cooperation.

Both Parties exchanged information about modern conditions and perspectives of Forestry in their countries and expressed opinions about the possibility of Scientific and Technical Cooperation in this field.

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1. The parties selected a number of subject areas of mutual interest to begin cooperation (Appendix I).

Other subjects for future mutually beneficial cooperation in the Field of Forestry were also selected (Appendix II).

2. Representatives of American and Soviet parts of the Working Group (called "Parties") agreed to maintain cooperation between scientists and experts of scientific research organizations and institutions on the basis of mutual benefit and equality.

As a result of exchange of opinions, wide discussion and mutual proposals it was acknowledged important to maintain cooperation in the Field of Forestry by means of:

- joint studies;
- exchange of specialists;
- exchange of information and technical documents;
- mutual consultation and delivering of lectures on prearranged subjects;
- joint symposiums, in turn, in each country.

3. As a result of an exchange of opinions between the Delegation of the USA and the Ministry of Wood and Wood-working Industry of the USSR, the following possible directions of Scientific and Technical Cooperation were expressed as desirable and as being subject to broadening by mutual agreement of both sides:

- (a) development of a system of machinery and equipment to carry out the totality of all the work involved in felling and logging forest areas in flat and mountainous terrain so as to eliminate the use of manpower;

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- (b) development of modern technology and equipment for treatment of wood waste in the manufacture of particle, fibre, and other hard boards, including equipment, technique and materials for perfecting the surface of the boards;
- (c) creation of a continuous production process and equipment for the production of large plywood sheets for construction purposes from coniferous woods including larch.

Specific subjects and forms of Scientific and Technical Cooperation between the organizations of the USA and the USSR in the area of the wood and woodworking industry will be determined by both sides at a future date.

4. In the course of discussions between the US Forestry Delegation and the Ministry of Pulp and Paper Industry of the USSR, the following possible directions for Scientific and Technical Cooperation were noted:

- (a) the chemistry of lignin with the aim of its intensive utilization during the treatment of wood;
- (b) improvement of the quality and creation of new types of wood pulp for chemical treatment;
- (c) modernization of the technology of wood pulp production with the object of preventing pollution of the environment.

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Each party agreed to discuss subjects and forms of cooperation before the next meeting of the Joint Work Group.

5. The Parties stated that mutual exchange of information must be done in accordance with rules of each of the arranging Parties. Any information obtained in joint studies of Scientific and Technical Cooperation can be given to a third party with consent of both Parties.

6. The Working Group acknowledged that the problems of forestry, wildlife, water resources and environment are closely related. So, it is of great importance for the Joint American-Soviet Commission in reviewing the work of the various Working Groups to avoid duplication.

7. The Parties agreed that cooperation is to be started immediately after approval of mutual scientific programs by the Joint American-Soviet Commission on Scientific and Technical Cooperation. Each Party listed the appropriate scientific organizations to begin the work.

8. Delegates of both Parties pointed out with pleasure the mutual understanding and business atmosphere of this first meeting of the Working Group.

9. The Parties agreed to hold a meeting of the American-Soviet Working Group in the US in 1974 if the proposed program is approved by the Joint Commission.

The Minutes are recorded and signed in Moscow September 6, 1973 in two copies in English and Russian. Both texts are equally valid.

CHAIRMAN OF AMERICAN PART
OF WORKING GROUP IN THE
FIELD OF FORESTRY

R. K. ARNOLD



CHAIRMAN OF SOVIET PART
OF WORKING GROUP IN THE
FIELD OF FORESTRY

N. MOISSEYEV



Appendix 1

P R O P O S A L S

for Scientific and Technical Cooperation
between USSR and USA for 1974-1979

| List of Subject Areas and Divisions | Participant organizations in | | Date of fulfillment | | Forms of Cooperations | |
|--|--|---|---------------------|--------|--|---|
| | USSR | USA | Start | Finish | | |
| I | 2 | 3 | 4 | 5 | 6 | 7 |
| I Effective methods and means of detection, prevention and control of forest fires | State Forestry Committee for USSR Council of Ministers, Moscow | USDA Forest Service, Washington | 1974 | 1979 | | |
| I) Techniques and tactics of detection, prevention and control of forest fire with special emphasis at first on use of aircraft and chemicals and retardants | Forest Research Institute, Leningrad Central airbase, Pushkino town, Moscow Region | Fire Laboratory Missoula, Montana San Dimas Equipment Development Center - Forest Service Regional Office, Albuquerque, New Mexico | 1974 | | Exchange of information. Exchange of experts & development of working program | |
| 2) Development of automatically controlled systems of operative forest fire control management | Forest Research Institute, Leningrad All Union Forest design Organization ("lesproject") Moscow | USDA Forest Service, Washington | 1974 | | Exchange of information | |

- 2 -

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|----|--|--|--|------|------|--|
| 3) | Artificial rainfall and prevention of lightning for forest fire prevention and control | Forest Research Institute, Leningrad | USDA Forest Service Fire Laboratory Missoula, Montana | 1974 | | Exchange of information |
| 4) | Additional items of interest: | State Forestry Committee for USSR Council of Ministers, Moscow | USDA Forest Service Washington | 1974 | | Exchange of information |
| | a) Infra-red detection of fires | | | | | |
| | b) Fire danger rating | | | | | |
| | c) Development of mathematical models of forest fires | | | | | |
| | d) Ground equipment for fire control | | | | | |
| II | Integrated control of forest insects and diseases | State Forestry Committee for USSR Council of Ministers | USDA Forest Service Washington | 1974 | 1979 | |
| 1) | Integrated control of gypsy moth and its population forecasting | All-Union Research Institute for Forestry and Mechanization | Forest Insect and Disease Laboratory North-eastern Forest Experiment Station Hamden, Connecticut | 1974 | | Exchange of information |
| | a) Methods of survey of gypsy moth (Porthetria dispar L.) | Ukrainian Research Institute for Forestry | | 1974 | | Exchange of information |
| | b) Methods and techniques of gypsy moth control with the use of attractants | All-Union Research Institute for Forestry and Mechanization | - " - | 1974 | | Exchange of information |
| | | Ukrainian Research Institute for Forestry | - " - | 1974 | | Joint work. Exchange of information |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|------|------|---|---|
| 2) Development and improvement of microbiological and chemical means of control of forest insects | All-Union Research Institute for Forestry & Mechanization Ukrainian Research Institute for Forestry | Forestry Sciences 1974 Laboratory Pacific Northwest Forest Experiment Station Corvallis, Oregon | | | | Joint work. Exchange of information. |
| III Classification of forest biogeocenosis & determination of their biological potential. | Leningrad Forestry Research Institute State Forestry Committee for USSR Council of Ministers, Moscow USSR Academy of Sciences | USDA Forest Service Washington | 1974 | 1979 | | |
| 1) Development & specification of classification for forest biogeocenosis | All-Union Research Institute for Forestry & Mechanization Laboratory of Silviculture, AS USSR Leningrad Forestry Research Institute | Forestry Sciences 1974 Laboratory Inter-mountain Forest Experiment Station Missoula, Montana | 1974 | | | Exchange of information, methods and programs |
| 2) Definition of forest productivity potential | "-" | Southeastern Forest Experiment Station Ashville, North Carolina | 1974 | | | Exchange of information and programs of work |
| 3) Influence of economical activities on the dynamics of forest biogeocenosis, including utilization of chemicals in forest tending | All-Union Research Institute of Forestry and Mechanization Leningrad Forestry Research Institute | "-" | 1975 | | | Joint work |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|----|--|---|---|-----------|--|---|
| 4) | Economical evaluation of forest productivity as to classification | All-Union Research Institute for Forestry & Mechanization | Forestry Sciences Laboratory Inter-mountain Forest Experiment Station Moscow, Idaho | 1974 | Exchange of information | |
| IV | Development of improved technological processes of harvesting | State Forestry Committee for USSR Council of Ministers | USDA Forest Service Washington | 1974 1979 | | |
| 1) | Technology of clearcutting and clearing the site | Leningrad Forestry Research Institute | Forest Service Research Washington, D.C. | 1974 | Exchange of information | |
| 2) | Study of forest environment changes under influence of fellings & mechanized logging | All-Union Research Institute for Forestry & Mechanization Leningrad Forestry Research Institute | Pacific Northwest Forest Experiment Station, Portland, Oregon | 1974 | Exchange of information | |
| 3) | Development of technology of performing shelterwood & selection fellings with use of prospective machinery and equipment | All-Union Research Institute for Forestry & Mechanization Tbilise, Institute of Forest Sotchi Forest experimental Station | - " - | 1974 | Exchange of information + specialists Joint research. | |

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|----|--|---|--|------|------|---|
| V | Forest regeneration & afforestation | State Forestry Committee for USSR Council of Ministers Lenin All-Union Academy of Agricultural sciences | USDA Forest Service | 1974 | 1979 | |
| 1) | Tree breeding and seed production of tree species for protective reforestation | All-Union Research Institute for Forestry & Mechanization All-Union Research Institute of Forest-agromelioration Ukrainian Research Institute of Forestry Central Research Institute of Genetics & Selection | Forest Service Research, Washington, D.C. | 1974 | | Exchange of information Exchange of selected materials Joint research |
| 2) | Establishment of field shelterbelts in various natural conditions & their tendings | All-Union Research Institute of Forest-agromelioration Ukrainian Forestry Research Institute | Rocky Mt Forest Experiment Station Lincoln, Nebraska | 1974 | | Exchange of information Preparation of joint programs research |
| 3) | Technology and mechanization of reforestation activities (seedling growing in controlled environment, mechanization of planting and automation of forest plantations & management) | Leningrad Forestry Research Institute All-Union Research Institute for Forestry & Mechanization | Shelterbelt Laboratory Rocky Mountain Forest Experiment Station Bottineau, North Dakota | 1974 | | Exchange of information Development of joint Research programs |

Appendix II

THE PROBLEMS SUBJECTED TO JOINT WORK IN FUTHER
EXPANSION OF COOPERATION

1. Genetics. selection. introduction and forest seed production.
2. Establishment of high-productive and early-maturing plantations including utilization of effluents for the purposes of irrigation.
3. Development of methods of forest inventory and forest organization with the use of measurement techniques and aersurvey (aerial photography).
4. Economics and organization of multipurpose forestry.
5. Interrelationships of the forest and the environment.
6. Dutch elm disease in shelterbelts and methods of its control.
7. Establishment and maintenance of forest stands optimal structure.
8. Biological and chemical methods of control Fomes annosus.
9. Training of scientific personnel by means of postgraduate (studentship) and by skill improvement of managing personnel.
10. Development of improved utilization of wood and wood processing residues.

The range of above mentioned problems may be expanded or reduced by mutual consent on the following meetings of Work Groups.

| STATE - A.I.D. - USIA ROUTING SLIP | | | | DATE 9/18/73 | |
|---------------------------------------|---------------|---------------|----------|-----------------|---------------|
| TO: | Name or Title | Organ. Symbol | Room No. | Bldg. | Initials Date |
| 1. | Mr. R. Pardon | EUR/SES | 5227 | N.S. | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |

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| Approval | <input checked="" type="checkbox"/> | For Your Information | Note and Return |
| As Requested | | Initial for Clearance | Per Conversation |
| Comment | | Investigate | Prepare Reply |
| File | | Justify | See Me |
| For Correction | | Necessary Action | Signature |

REMARKS OR ADDITIONAL ROUTING

US-USSR S&T AGREEMENT

Attached are two copies of the report of the US-USSR Joint Working Group on Forestry Cooperation.

| | | |
|------------------------------|------------------|-----------|
| FROM: (Name and Org. Symbol) | ROOM NO. & BLDG. | PHONE NO. |
| ASheldon SCI/SA | 7830 NS | 28996 |

FORM JF-29 (Formerly Forms DS-10, AID-5-50 & IA-68)
3 - 68

NOMI

For INFO and Comment.
Comment by ~~Nov 1~~, Oct 5

Ray Pardon

Ellie preparing
comment